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REMARKS

The Applicants have amended the specification to correct formal drawing references as pointed out in the aforementioned Office Action. The actual amendments made are shown in the Attachment hereto.

The Applicants submit that these amendments add no new matter to the application, and request their entry for the purposes of placing this application in condition for grant.

Should there be a need to discuss the amendments or any issues involved in this application, please contact the undersigned at the telephone exchange set forth below.

Respectfully submitted,



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Dated: 3/10/06

AMENDMENTS TO THE SPECIFICATION
APPLICATION SERIAL NO. 10/760,339

Please delete the paragraph at lines 20-21 on page 5, and substitute the following:

--Figures 5a and 5b illustrates an internal column section, which provides passage of liquid and vapor between stages, and a view of a barrier separating the stages.--

Please delete the paragraph at lines 22-23 on page 5, and substitute the following:

--Figures 6a and 6b illustrates an internal column section, which provides passage of liquid between stages, removal of vapor and addition of inert gas.--

Please delete the paragraph at lines 24-29 on page 5, and substitute the following:

--Figure 7 illustrates diagrammatically a reactor system comprised of two separate reactors, one for polymerizing 1,3-propanediol to an intermediate molecular weight greater than that of the starting material and less than that of the desired final product, for instance a degree of polymerization of 2 to 20, preferably 5-10, and a second reactor to polymerize the intermediate to higher molecular weight.--

Please delete the paragraph at lines 18-24 on page 11, and substitute the following:

--Figures 5a and 5b illustrates a view of an internal section of the reactor of Figure 4. The liquid level fills the reactor stage at (30) and the reaction mixture plus gas and vapors pass through openings (32) in the barrier (31) between the stages. A side opening (34) in the barrier (31) allows for introduction of inert gas. A centrally located heater (33) is shown. The overhead view of a barrier (31) shows a large central opening (35) for the heater and three additional openings (32) through which the reaction mixture plus gas and vapors pass.--

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Please delete the paragraph at lines 25-36 on page 11, and substitute the following:

--Figures 6a and 6b ~~5b~~ illustrates an alternative internal section of the reactor of Figure 4. In this section, there is a liquid level (40) and a vapor space (46). A dipleg (47) drops from an upper stage (48) to below the liquid level (40) in a lower stage (49) to create a path for substantially liquid from the reaction mixture to pass from the lower stage (49) to the upper stage (48). There is also provided an opening (50) on the side of barrier (41) to provide for removal of vapor from the vapor space (46). The vapor comprises water vapor and volatiles in the reaction mixture. There is a side opening (44) in barrier (41) to allow for introduction of an inert gas. A centrally located heater (43) is shown. The overhead view of the barrier (41) shows a large central opening (45) for the heater and one additional opening (42), which is connected to dipleg (47) for liquid to pass from lower stage (49) to upper stage (48).--

Please delete the paragraph at lines 1-16 on page 12, and substitute the following:

--Figure 7 ~~6~~ illustrates an alternative embodiment wherein a large part of the reaction is carried out in a non-columnar reactor (51) comprising one or more stages and the reaction mixture is continuously conveyed from this vessel into the lowest stage (52) of a multi-stage co-current up-flow column reactor (53). Monomer, 1,3-propanediol (54) is fed into vessel (51), then fed via piping (55) into stage (52). Steam produced in the reaction is vented from vessel (51) at (56). An inert gas is shown added to stage (52) at (57). Polymer product is removed at (58) and the reaction vapors are vented at (59). This arrangement reserves the column for the final portion of the reaction where the use of multiple sequential stages is important for efficiency of reaction. For a given rate of production the size of the column can be reduced, with much of the reaction being

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carried out in a less expensive first vessel. The two vessels may be operated under different pressures, with the first vessel being preferably operated at a pressure closer to atmospheric than the column. The column is preferably operated under vacuum. (This arrangement can also be used with a column operating in the counter-current mode.)--